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Some Diseases of the Udder and Teats of Cattle.*

By R. Hudson, F.R.C.V.S., Retford.

When asked by your President to present a paper before your Society, I felt honoured at having been requested to appear before so large and influential a body. I felt somewhat alarmed, also, because I know the Yorkshireman's love of hard facts, and his dislike at having his time wasted. However, fortunately for us all, I am not gifted with the pen, so what I have to say is likely to be concise.

A prominent essayist at Torquay stated that "the surgery of the udder had been neglected," and although I did not agree with him, I thought that, if it was so, this would be an opportunity to help it a bit. I was loath to leave the subject of mammitis alone, but did so for the above reason, and also because it requires a paper to itself.

Before one may insert even a pin into a cow's udder one has to consider some method of restraint. Many operations may be performed while the patient is standing, and it is advisable to tie her up short to the rack, hold her nose, hobble her, and tie her tail to a rope round her chest on the side opposite to the one from which you intend to operate. A lashing tail may often hinder the success of an operation both by soiling the wound or instrument, and by upsetting one's temper.

I have brought a strap hobble to show you, such as I use. It is a common pattern, I know, but there may be some who have not used it. For casting I prefer to use sidelines, which pass through ring hobbles round the hind legs above the fetlocks. Their use enables the hind legs to be pulled well forward and clear of the region of the udder.

Wounds.

Superficial wounds of the udder, like all skin wounds in cattle, heal very rapidly. If fresh, they should not be allowed to suppurate and scab over, but should be sutured with fine sutures and dressed with dry dressing.

In these days one has to bear in mind the risk of milk contamination, and it is lessened by adopting proper surgical methods. Skin wounds of the teats are a difficult proposition because of the interference by milking, but here healing may be hastened by suturing. Sometimes it is impossible, owing to the shrunken condition of the edges of the wound, and one or more may have to be removed with scissors. In such wounds I have found twice daily applications of tr. sanguinaria canadensis a very good remedy, better than the greasy applications which are commonly employed.

Sloughing of the skin over the teat end is a common occurrence and mostly renders impossible apposition and union. As healing advances difficulty in milking arises through closure of the orifice. In such cases one hesitates to use bougies, but if antiseptic fomentations fail to make the orifice patent they, or incising the opening by crucial incisions, may have to be resorted to.

Deep wounds, involving the parenchyma of the gland, may occur without or with the skin being broken. In the former, there may not be any need for surgical interference, but the latter may lead to escape of milk with resulting milk fistula. If the injury is in the upper part of the gland, satisfactory healing may take place under applications of dry dressing, but if in the lower part, it may be aided by cleansing and fine suturing.

Sometimes, injuries under the unbroken skin result in serous abscesses, or which may end in pus formation. It is best to wait three or four days and let nature work it off from the deeper parts of the udder before attempting evacuation. Serum and blood clot may then be removed with less risk of milk escaping and sepsis extending to the deeper parts of the gland. It is better not to allow such abscesses to go on to pus formation.

Udder Fistula.

This may be congenital or acquired, and is found in the lower part of the udder in the region of the milk or galactophorous sinus. When acquired it is the result of some small penetrating wound. It is a nuisance, and an attempt should be made to close it. Owing to its position it is difficult to operate on standing, so the animal should be cast. Under a local anæsthetic and antiseptic precautions a small elliptical piece of skin is taken out and the orifice and the edges brought together with fine sutures, painted with collodion and dusted with boracic powder. The quarter should be emptied before operating, and the part cleansed with ether or alcohol, to remove fat.

The fistula should be probed to make sure of its direction, for if this is not done one may find that it does not follow the direction of the elliptical incisions.

Fistula of the Teat.

Like udder fistulæ, those of the teat are both congenital and acquired. It is generally advised that the operation be delayed until the cow is dry and then it does not get done at all. Sometimes the milker can close it with his fingers, but usually the flow washes over his hand into the milk pail.

With quiet cows the operation may be performed standing, with others it is better to cast with sidelines.

The quarter is emptied, washed and dried, and a wire clamp placed well above the opening. The teat is flushed out with a previously boiled boracic solution containing a little alcohol to remove grease. A 5 per cent. solution of cocaine is injected into the skin, outside the lines of the incisions, and an elliptical piece removed. The wound should be kept as small as possible, particularly so as the duct is approached. While allowing time for hæmorrhage to cease, the teat is again flushed out with boracic solution. Continuous sutures of fine gut, deeply placed, are now inserted in such a way that, having reached the end of the wound, the suturing is continued

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backwards and the ends tied. This lacing suture prevents stretching of the wound when drawing the teat. Over the continuous suture a row of interrupted sutures is placed, and the teat injected under pressure to detect any leakage from the wound. If there is any, further sutures are inserted and the teat drawn to remove any infection and blood. The wound is now painted with collodion and dressed with boracic powder.

Full-handed milking may be carried on, using as much care and cleanliness as possible and avoiding thumb and finger stripping. Sutures are removed in about ten days. The wire clamp prevents the down flow of milk during the operation.

Atresia, or Occlusion of the Teat.

This may be congenital or acquired, and may be complete or partial. It may be due to several conditions, *viz.*: no orifice to the duct; stricture of the duct, with and without inflammatory cause; membranous formations; papilloma, blood clot, casts, casein; thickening of the duct by outside deposit; inflammation of the teat set up by injury.

Absence of duct orifice.—This cannot be very common, for I have not seen a case. The treatment suggested is the insertion of a red-hot knitting needle. In cases where the new opening could not be kept patent, the operation of crucial incision should be performed.

Stricture of the orifice.—If one teat only is troublesome I have found the insertion of a tapered bone bougie of use. This is inserted and left in while the first two quarters are milked, then it is withdrawn, and milking continued. If all teats are hard to draw, stretching with the tapered bougie and insertion, and withdrawal, of the spiral may be tried.

Inflammation of the duct orifice.—In this condition one gets a sore which scabs over between milkings and may affect all the teats at once. It may be due to the bites of flies attracted by leakage of milk, and at times to some bacterial invasion aided by milker's hands or contact with bedding. It may be associated with vaccinia. The condition often extends higher up the teat than it appears to do, and may reach the upper limit of the sphincter.

When treating it one should try to bring about healing of the sore as well as the prevention of the closure of the orifice. I have found a short wax bougie which has been soaked in 3 or 4 per cent. carbolic lotion a good treatment. The bougie should be sufficiently thick to have dilated the orifice sufficiently to maintain it open during milking. The end of the teat must be well cleansed with carbolic lotion before inserting. I have also found the injection of a little carbolic oil, after milking, good, the injection being partly withdrawn and the remainder left in. In cases where the bougie fails, it may be necessary to carry out crucial incision. Some cases may be relieved by withdrawing a special spiral. (Stinson.)

Papillomata or Warts.—They have presented one of my worst difficulties, and rather than be beaten I have opened the side of the teat and removed them, adopting the same procedure as in fistula. I have also used a spiral with a sharp edge which is sometimes satisfactory. Some use a steel wire noose. When detached, their removal is often difficult. The spiral will sometimes bring them to the orifice, when they may be withdrawn with forceps. Swelling of the duct often ensues and bougies may be necessary to keep the milk flow going.

Membrane across the duct.—This usually forms in the upper two-thirds of the teat, where there is room for operative interference, and yields much better results than the operation for the removal of papillæ. Like the presence of papillæ it is often referred to as a "pea in the teat," and owing to its occasional central thickening the membrane does sometimes feel pea-like until closely examined.

It appears to result from some defect in "drying off." Probably an accumulation of milk is gradually absorbed, leaving a small quantity in the teat. This may form a scum, which, setting up irritation in the duct, becomes replaced by organised tissue. From its nature, it must take some months to form, for it is not a simple deposit, but a real connective tissue formation. It occurs in primiparæ, but here we know milk is often secreted before calving, owing, perhaps, to the influence of œstrum.

Various instruments have been devised to break down this membrane so that milk may flow through, *viz.*, a thick probe, a harpoon with notches, which catch on withdrawal, a bow-shaped probe with a meeting cutter at the bottom, the bistoury caché, a concealed knife worked by a screw, a spiral with a designed lower turn, etc. Success depends on two factors. One must not injure the teat, and the hole must be a large one.

The spiral which I designed some years ago will do the operation in most cases with success. The procedure is as follows:—

The probe and spiral are placed in a dish containing a hot antiseptic solution, and the hands and teat are cleansed and dried.

The probe is passed along the duct until the obstruction is met with and, feeling for the centre, it is forced through. The side of the teat is pulled on while the probe is in position to stretch the whole a little. Withdraw the probe and twist in the spiral. Work the point about gently until the point enters the hole in the membrane, then twist in two turns and sharply withdraw, holding the teat end firmly to prevent complete withdrawal. Repeat once or twice, then screw the whole instrument through and sharply withdraw, repeating the operation once or twice until the instrument passes freely up and down. It is then twisted out of the teat.

The teat is drawn three or four times daily for two or three days, but no attempt should be made to massage it. Occasionally it blocks again a day or two after operating, but usually remains open after a second operation.

In cases where the membrane has existed during a previous milking, it may have sagged so low in the teat that the spiral is prevented from breaking through owing to support from the side of the teat below. In these cases I have found it more easy to break through by forcing the instrument upwards, or by using a smaller instrument. I rarely find it necessary to use a bougie afterwards.

Blood Clots, Casts, Coagula.

The presence of blood clots may follow deep-seated injury of the gland. Sometimes they exist in the early stages of mammitis and their removal may offer considerable difficulty.

In mammitis pressure to force them out often leads to core-like thickening of the duct, and the same applies to other coagula. These obstructions may be much more easily removed by injecting, at intervals, a small quantity of sterile carbolic oil, 1 in 40.

Some time ago, in a mammitis case where the milk secretion had returned, a cast as large as my finger descended into the teat. It was so large that the milker had no difficulty in holding it above the teat while he carried on the operation of milking. Such a cast could only have been removed by opening the side of the teat, and this the owner would not let me do.

Fibrous Thickening of the Duct.

With any obstruction of the teat, and sometimes after operations, it is not uncommon to find the owner spending a lot of time drawing at the teat (perhaps because he can sit down to it) often with hard and horny hands. In one case where I had perforated a membrane and anticipated a good result, I was surprised to find the teat obstructed from top to bottom by what felt like a small carrot. I learned that the owner had spent a lot of time rolling the teat between his hands, thinking that, by so doing, he would prevent the membrane from forming again. The rolling motion had tended to drag the duct from its surrounding tissue and nature, in attempting to fix it tighter, had deposited tissue round it.

In these cases little can be done but to handle them as lightly and as seldom as possible.

Bruising of the Teat by Treads.—Such outside injury is mostly relieved by warm fomentations and gentle pressure to the teat before commencing milking.

The Crucial Incision Operation.

Performed for the relief of obstructions at the sphincter, this operation was brought to our notice by Stinson. It is a useful operation but occasionally mammitis may supervene, and the quarter become useless. I would only suggest it after other means had failed or where the time expended made the carrying on of other processes unprofitable.

The teat is held firmly between the thumb and finger, and a sharp scalpel (some prefer a razor) is drawn across the orifice following the duct in the incision. A second incision is made at right angles to the first. The incisions must be sufficiently deep to allow the milk to be drawn freely, but not deep enough to allow it to escape continuously. When drawn, the milk often sprays wide of the pail, but as healing follows this becomes less.

One of the difficulties of the operation is to follow the duct and Harvey has suggested that a director should be inserted and used to guide the incisions. Antiseptic applications should be applied and the animal kept well bedded.

Amputation of the Teat.

It is a good procedure in many cases and is often called for sooner than it is performed. Many cases of suppurative mammitis and subacute cases in feeding cattle derive great relief from the continuous drainage removal of the teat affords.

I have heard that the Hausmann Dunn emasculator is a good instrument to use, though I would not use mine for such a purpose. A pair of large scissors or a long-bladed knife is sufficient, the incision being made as high up as possible. The sinus should be well cleared out at the time because it often contains masses of pus.

Hæmorrhage is often troublesome and may be checked by plugging the opening tightly or, better, by inserting a temporary suture across. The quarter should be flushed out daily with antiseptic solution and the finger or a swab inserted to keep the hole open.

Abscess of the Quarter following Mammitis.

Amputation of the teat does not always prevent their formation, for a milk duct may have become obstructed, and pus may collect above it. These accumulations should be felt for and opened early at the best point for drainage. The cavity should be well cleansed out on the first occasion, for it often contain masses of inspissated pus which break down slowly, retard healing, and may lead to further abscess formation.

Sloughing of the Quarter following Necrosis.

The removal of the necrotic mass may be hastened by enlarging the opening through which pus has probably been escaping for some time. The handling of the unpleasant mass is difficult, and its removal cannot be forced too much, because the large blood vessels are the last to give way, and their rupture may lead to a fatal ending. Sometimes the blood vessels may be ligatured and the mass removed with scissors.

Ablation or Amputation of Two or Four Quarters.

One quarter cannot be removed alone, because it cannot be separated from the other of the same side with safety. It is not an operation to be contemplated lightly and one must consider the particular cases in which a success may be expected. There are suppurating udders which keep on forming abscesses, even after removal of the teat, and which have a very emaciating effect on the animal. In such cases I would not hesitate, because the patient would probably become useless from emaciation, septic joints, and general septicæmia.

Where the disease of the udder exists in an acute stage and there is active hyperæmia of the gland, and where the udder is very large, the operation is not advisable, owing to the risk of shock and hæmorrhage.

Old cows are much more risky than young ones, and also those where there is evidence of blood infection, or toxæmia. In all cases the owner should be advised of the risk and be prepared for a fatal issue.

Operation.—10 c.c. adrenalin chloride, with 10 c.c. normal saline are injected subcutaneously to lessen shock and hæmorrhage. Chloroform should be administered.

An abundance of tow, which has been boiled in antiseptic solution, should be provided. Hæmorrhage can be greatly reduced by ligaturing the mammary artery before proceeding with the longitudinal incision.

A vertical incision, about 6 inches long, is made over the track of the vessel, taking a line from the inguinal ring to a point 2 or 3 inches posterior to the junction of the fore and hind quarters. Separate the tissues by blunt dissection until the artery is free, then place on forceps or a thick soft ligature. The longitudinal incision is made from front to rear, keeping well above the base of the teats.

At the beginning of the incision, and before completing it, find the mammary vein and ligature it. It is often varicose. Continue the horizontal incision until it meets the septum, and proceed to separate the quarter from front to rear, by blunt dissection where possible. Forceps must be placed on large vessels as they are cut through, and ligatures later applied.

If the main artery has not been ligatured it must be when met with, and it must be doubly secured with a soft thick ligature before severing. The skin along the lower border of the septum is now divided and the two quarters dissected off, or if both are being removed another longitudinal incision is made and the procedure carried out on the other side.

Suturing may be continuous or interrupted and made over a large quantity of tow packing. The tow should be soaked in carbolic solution and the interior of the wound may be dressed with iodoform and boracic acid. A hole must be left for drainage and a few interrupted sutures placed near the edge of the hole, so that when the tow is removed the other sutures will not be loosened. That is when continuous sutures have been used. The wound is dusted with boracic iodoform powder. The plug should be removed on the second day, the cavity swabbed out and plugged again, if necessary, owing to hæmorrhage. The wound should receive daily flushings of antiseptic solution, and if the animal has been much affected by the operation, daily injections of adrenalin chloride, 10 c.c., should be administered. Gruel and plenty of nutritious diet should be allowed. The patient should be kept in a cool, well-bedded place.

Mr. HUDSON then exhibited various instruments used in his practice, including several types of spirals, a syringe for the introduction of carbolised oil into the teat, a simple metal clamp for preventing the down fall of milk during an operation, and a taper bone bougie.

DISCUSSION.

Mr. W. COLLINSON (Sheffield), in opening the discussion, said they always expected some very useful remarks from Mr. Hudson, and they had not been disappointed on the present occasion. With regard to the spirals used by Mr. Hudson, he quite agreed with him that the first thing to do was to see that the animal was fast. The first time he had used one he had a man holding the nose, but omitted to fasten the leg. As soon as the spiral was pulled to break the membrane, there was a kick, and he found himself in the gutter. It was a very useful instrument, and after using it once, the insertion would be found quite easy. During the past few years he had adopted the method of injecting air into the teat after the operation and tying the end of the teat, leaving instructions for the tape to be removed after three or four hours. The idea was that the air would keep the membrane dilated and would not allow the edge to heal so quickly. With regard to the papillæ in the teats, he used three or four different sizes of papillatomes, consisting of a hollow shank with sharp edges. One could feel the side of the wart, insert the papillatome, give it two or three turns, and get the papillæ into the hollow part of the instrument, afterwards inserting the ordinary bougie. He had used in such cases a bougie containing copper sulphate. In some cases that acted very well; in others one was apt to get thickening. He agreed with Mr. Hudson that the less irritation there was in the teat the better. He had not tried the injection of carbolised oil, but he should certainly do so.

Mr. E. H. PRATT (Northallerton), said the paper had been very interesting. Mr. Hudson's method of removing large papillæ and growths from the teat was one which he himself had often thought about, but had not had sufficient confidence to try, and he would like to know if there had been a satisfactory percentage of recoveries or if in some cases the teat was lost. As for removing the udder, he was afraid he should hesitate very much before doing that, though perhaps if one saw Mr. Hudson perform the operation one would have more confidence in repeating it. He would like to ask Mr. Hudson how the spirals were inserted. Was the probe kept in and the point of the spiral passed into the duct and worked up by means of a screwing motion, a sharp pull being given when it got through the hole? Was there no danger of injuring the mucous membrane or did the instrument simply bring away the small film that had grown across the teat? One was rather apt to think that a big tear might result down the mucous membrane.

Mr. HUDSON illustrated the method he used by means of one of the instruments. First of all one probed to penetrate the membrane, trying to get as near as possible to the centre. There might be a danger of injury to the outside of the teat if the membrane were penetrated at the side; but if one got anywhere near the middle there should be no danger. The spiral was passed through, the teat held firmly at the end, and the spiral given a sharp pull down. That should be repeated once or twice, because the lower turns of the spiral were rather blunt, and more abrupt than the others. That would enlarge the hole sufficiently to enable the whole of the instrument to be passed through, and holding the teat firmly at the end and slightly on the stretch, one gave the instrument a sharp pull down. It was very rare to get any hæmorrhage, which was a fairly good indication of injury to the wall of the teat. Of course, there was always a chance that the opening would block up. If it did, it would generally do so within about four hours, and a further application of the instrument was sufficient to keep it going permanently.

Col. H. G. BOWES (Leeds), said he did not know anything about cows' udders, but he would like Mr. Hudson to explain what he meant by holding the teat whilst using the spiral. Did Mr. Hudson mean hold the teat tightly round the instrument so that it did not pull out of the teat duct at all?

Mr. HUDSON said that was so. If one did not hold the end of the teat, the tendency was for the whole instrument to pull straight out of the end of the teat, and with those spirals that were sharp on the lower edge one ran the risk of injury to the duct at the orifice, but if one held on tight at the bottom and gave a sharp pull, it would be pulled down to one's fingers and be stopped there.

Mr. F. C. SCOTT (Pontefract), referring to fistula in the teat, said some of these responded well to the method of touching them with the point of a hot iron instead of making an elliptical incision and taking the fistula out. He was referring to congenital fistulæ. With regard to the spiral instrument, he had used it several times, but occasionally he got more blood-clot than he liked. Whether it was on account of injury to the quarter above, he did not know, but he did not think so, as he had been most careful in using the instrument. Very often when one had to deal with chamber-teated cows it was when they were newly-calved, and sometimes there was a retained cleansing as well. In such cases he generally attended to the cleansing first and left them a week or a fortnight before operating on the teat. In one such case a good deal of thickening of the whole of the duct occurred, and eventually that quarter had to be sacrificed. With regard to amputation of the udder, Mr. Hudson mentioned that he made his incisions just above the base of the teats. In one case on which he operated in the summer-time the remaining skin after operating in that position was a nuisance, and about six inches of skin was taken off higher up because there was such a small area, about the size of the palm of the hand, that one could sacrifice nearly the whole of the skin in doing the operation. A troublesome condition of the teats was caused where a cow had been

over some barbed wire and slit the teat and milk was escaping. Probably the farmer attended to it for a couple of days, and then the practitioner was sent for. Treatment in those cases was not particularly satisfactory, because a good deal of sepsis had occurred. What would Mr. Hudson recommend in such cases? With regard to milk fistula, the lining of the teat was generally swollen, and one could not invert the edges of the mucous membrane and suture inside, and the skin was generally swollen, so that it was almost impossible to suture. In such cases he had put bougies in and bandaged them and drawn the milk off with a siphon.

Mr. T. C. FLETCHER (Sheffield), said he had listened to Mr. Hudson's paper with great interest, because it opened out such a wide field for younger men than himself. Being an old man, he thought the less one did in the way of surgical treatment the better. In a wide milk practice one was daily coming across cuts from barbed wire, occlusion of the orifice, and what were called deaf teats—in other words, teats through which no milk could come. In one case he had found three deaf teats in one cow. Another very common and annoying affliction was called in his district "pip gargil." It was a sore at the end of the teat of which all those who practised in milk districts would be aware, and the sore scabbed over between each milking and presented a most difficult problem. He had tried all sorts of bougies and dressings, but he had not injected carbolic oil as suggested by Mr. Hudson. The dressing he had found most useful was a mild ointment of corrosive sublimate. He had used carbolic dressings and all sorts of antiseptic dressings, but not with any marked success. One man with whom he dealt said he could cure almost any case of that kind. His method was to use little pads made of cobblers' wax stuck on the end after each milking. On learning of this, he (Mr. Fletcher) had made dozens of such pads, but the results were not at all good. Mr. Hudson's spiral instrument for rupturing the membrane he had used with variable success, and he must admit that in certain cases one got more bleeding than one liked. Whether it was lack of skill on the part of the operator he would not like to say. He noticed that since the first instruments were devised by Mr. Hudson, the size had been lessened a good deal, and he thought Mr. Hudson was wise in reducing the size. He had punctured the membrane many times with an ordinary teat tube and emptied the milk out of the duct that had accumulated, but the opening was so small that there was no object in using the method except to relieve the pressure for a few days after calving. Mr. Hudson's instrument would be widely adopted, there was no doubt, because in the hands of skilled surgeons it would be a fine acquisition to dairy practice, but it would have to be used with care. The making of an opening with the blunt probe, which one had to attempt to find with the end of the corkscrew portion of the instrument, he had never found to be an advantage. He thought one could do away with the probe and make the corkscrew instrument go direct through, because the point of the probe in the membrane was so difficult to find that it was not once in twenty times that one was successful in finding the same hole. Could not Mr. Hudson bring the point of his corkscrew portion a little higher up and further away from the commencement of the corkscrew part, so that one could do away with the probe entirely? A point which occurred to him was the giving of bloody milk by a cow. He had had under his care a cow which started to give bloody milk in one quarter and slightly bloody milk in the other three quarters. Different drugs and injections had been tried, but without much success. He would like to ask Mr. Hudson whether the secretion was wrong or whether the milking was wrong; he was inclined to blame the secretion. It was a common thing to blame the milking and say it had broken down a blood vessel, but often it was not true. He had had a case of necrosis of the quarter, and to his mind no operation should be attempted except such as could be performed with one's own hands, dipped in antiseptic solution. The quarter in this particular instance dropped off and finally separated, which was a common thing in sheep, but not so common in the cow, because in nine cases out of ten it destroyed the animal through shock or toxæmic effects. He was sorry Mr. Hudson, to whom he had sent two specimens of teats, had come away without them, because they were very interesting. The cow from which they were taken had two deaf quarters, and one could plainly feel what was commonly called a pea in the teat. He tried unsuccessfully to pass an ordinary milk tube up and could get nothing through. No milk could be obtained from either quarter, and he thought he was doing justice to his client by telling him to let the cow lose the quarters rather than operate. After he had gone the client was apparently not satisfied, and got a teat tube through both openings. It was rather a big one, and the consequence was that it set up such an intense inflammatory condition in both quarters that the animal had to be destroyed. Subsequently he had managed to get possession of the teats. Through one of them it was possible, with care, to get a tube through; in the other case it was impossible to get the tube through. There was a fibrous membrane right across which was occluding, and it was obviously a case for operation, but he had not cared to operate and hold himself responsible for the consequences.

Mr. W. CAMPBELL (Boroughbridge), said one was reluctant to interfere with a cow that was giving milk. If a teat had never given any milk since the calving, the chances were that if it was left alone the udder would go without any constitutional disturbance to the cow, but if the cow was in full and regular milk, and suddenly through some injury its teat became obstructed, it was a serious thing to begin to operate on a cow that was well and risk her going wrong and sometimes being killed. Since commencing to use Mr. Stinson's crucial incision it had been entirely successful, although Mr. Hudson had given him a shock by talking about making the wound too deep. Only two days ago he did two cows and must have gone too deep, because the milk ran away without any attempt at milking. Prior to using Stinson's crucial incision he had tried bougies and siphons, but they tended to make the condition worse than before. The passage of the siphon thickened the gland. He would like to ask Mr. Hudson the best way to remove superfluous teats in general heifers. He himself generally used the ligature, which was successful but slow, and sometimes it required a few ligatures to remove the teat completely. He was very often asked to do that in the case of heifers with irregular teats. In some cases they were so bad that it was difficult to know which of the teats should be removed. One could only go by the shape of the udder in trying to decide which should be removed. He had had one a few days ago with six teats; one certainly ought to have been removed, but he was not so sure about the other. The heifer had never milked and was three months off calving. The ligature worked well but had to be renewed several times. With regard to the operation for removing the udder, Mr. Fletcher had referred to sheep. If the sheep got to that state they were safe. After the sheep got beyond the third or fourth day she was safe, and one could generally allow her to go on. But one generally found that it suppurated, and the best way was to ligature the blood vessels and not remove them at all until about three days after the ligatures had been applied. He had formerly ligatured and removed them immediately, but nowadays he never attempted to remove them at first, and found it worked well. After three or four days or a week the mass could be removed easily. He used a ligature of medium tape. Ordinary ligatures cut into the vessel and caused a good deal of hæmorrhage above the ligature. Sheep did not thrive well until the udder was removed, and it was a very common occurrence with them. He had successfully done the same operation with cows, but they had been well advanced; he would not like to remove an udder full of inflammation.

Mr. S. E. SAMPSON (Sheffield), said he had had a few failures with the spiral instrument. On the first occasion Mr. Hudson's son had been instructing him how to proceed, and whether it was owing to his (Mr. Sampson's) strength

or inability to use the instrument he did not know, but he pulled the instrument straight through the sphincter, with permanent damage to the teat, and a black mark against him in his client's books. There was no doubt that it was an ingenious invention for opening the membrane. He might mention that all the instruments shown had been made by Mr. Hudson himself. Most veterinary surgeons, when they wanted an instrument, went to an instrument maker, whereas often one's own instruments could be made if one tried to do it. The spirals would undoubtedly open out a considerable new sphere of surgery in connection with the treatment of cows' teats, which was a subject many of them were diffident in tackling and in connection with which they had not had the success that Mr. Hudson had claimed. He himself had used the instrument on many occasions, but had not had quite the same amount of success.

The CHAIRMAN (Mr. W. Ackroyd, of Halifax) said Mr. Hudson was a surgeon, and no doubt many of them would not like to tackle the things which he had tackled. Speaking personally, he became more and more conservative in attempting to do anything to a cow's udder or teat, especially when the cow was healthy and giving a fair amount of milk. With regard to ablation of the udder, he had not so far tackled that in the cow. In cases where one got gangrene and necrosis following mammitis, he usually adopted a waiting policy. As soon as one could get to the vessel, remove it by hand. With regard to the spiral instrument, he had had no experience with it, but it was very interesting to see it and to hear Mr. Hudson's explanation of its uses. There was one point he would like to put to Mr. Hudson. During the past week he had been to a cow which was expected to figure in the show ring during the coming summer, and which on three separate occasions had bruised the teat heavily. It looked like healing up, and there was no mammitis. The client asked him if he could advise some method of preventing a recurrence. Did Mr. Hudson know of any method of dealing with the udder to prevent its being injured? Another point was that he did not hear Mr. Hudson mention the small lactic calculus in the teat; how did he deal with that? Sometimes pressure would bring them away fairly well, but others were a problem, and he had not found an instrument small enough to go through the sphincter and crush the small lactic calculus that was causing the trouble.

THE REPLY.

Mr. HUDSON, in replying to the discussion, said Mr. Collinson had mentioned the use of methods of restraint when operating on the teat. In his paper he had emphasised that point, which he considered of great importance. All of them were careless at times, and might suffer serious injury, even from a cow. With regard to Mr. Collinson's idea of injecting air into the teat with the milk-fever syringe after the operation, in a bad case, where there was difficulty in penetrating the membrane and breaking it down, the injection of air might be useful. It would have the effect not only of stretching the membrane, but also of arresting hæmorrhage and reducing effusion into the wall of the teat.

Mr. Pratt enquired about the degree of success in the removal of papillæ from the teat by operating from the outside. In his opinion that operation, if well carried out, would give a large percentage of successes. His one great difficulty had been the downflow of milk, and he thought he had almost completely overcome that difficulty by the use of the little wire clamp above. He would not fear opening the side of the teat and clipping off the papillæ at any time now that he had solved the difficulty of keeping the milk from descending. The removal of papillæ by any other means was an uncertain business. There was always a risk of extending the injury to the wall of the duct. He might mention that some years ago almost one of the first operations he had ever done on a cow was in connection with large papillæ obstructing the upper part of the teat. The cow was about to be dried off at the time his attention was drawn to her, and he let her go until she was calving the next time, and then under an injection of cocaine he opened the teat somewhere about the middle of its upper third, pushed the papillæ through the opening, clipped them off, and stitched it up. The cow calved and milked perfectly afterwards, and was a sound cow, but he thought it was a hopeless business if one could not stop the milk. If one could prevent the milk from flowing through the wound one had a great chance of success.

Mr. Scott mentioned the use of the hot iron for teat fistulæ. He had not tried it himself. Perhaps some other member had tried it and would give his views.

Several members had referred to non-success in the use of the spiral. It was perhaps advisable that he should not be told that everybody had had 90 to 100 per cent. successes, or he would feel too pleased with himself. He really could not understand, however, that so many difficulties should be met with in the operation. It seemed a very simple operation, and he had regarded it as such ever since he originated it.

Mr. Fletcher had suggested that the probe should be abolished. In some cases the spiral did not give much room in the duct. It practically filled it, and there must be freedom in the duct to enable it to penetrate the membrane with certainty. Again, some membranes were very thick, and required quite an effort in piercing even with a pointed probe. Now, the point of the probe was different from the point at the end of the spiral. The spiral was blunted and was intended to follow the hole already made. One could not with safety recommend a spiral with a sharp point, because during the twisting of it in the teat there would be considerable danger of the sharp point scratching or even puncturing the lining membrane of the duct. He himself thought the probe by far the best method. One had a better guide for the centre and a much surer chance of making a satisfactory opening than one could have with the spiral.

One thing might lead to a good deal of hæmorrhage, and that was if the penetration of the wall was not near the centre. He was not suggesting that one could hit the centre every time—he had missed it often and got into the side of the teat, which led to a considerable amount of hæmorrhage and thickening. But a good percentage of successes should be obtained.

Mr. Stinson had told him that he kept a record of the cases he operated on. He had done 300 cases then, and had had 90 per cent. successes. Personally, if he himself had kept a list of the teats he had dealt with, he thought he could claim 70 to 75 per cent. of successes, which was very good, considering that many of them had been interfered with before he was called in.

Mr. Scott suggested leaving a cow a week with a distended quarter. He did not think that was necessary. There was a greater danger of sepsis when one was performing an operation on the teat. One knew how much greater the risk was in cases of injections for milk fever. If a cow had got an imperforate teat, the teat should be operated on within twenty-four hours of calving. In most cases they were called in within that time, and there was no great dread of sepsis in those cases. With regard to sepsis, one need not fear it at all providing that the teat had not been interfered with before one arrived. Then, in all cases of teat injury, it was suggested by Harvey at Torquay, and very reasonably, that one ought not to operate on any teat without flushing out previously.

With regard to the removal of more skin in udder cases in the amputation of the udder, he did not know that it really mattered much. It depended a good deal on the udder. Dependant, sagging udders had a lot of skin and offered greater need for the removal of a larger quantity of skin than smaller udders. He had not found in any of the udder cases he had dealt with that had got better, that the amount of skin he had left on had been too much. He had had cases, on the other hand, where he thought he had not left enough.

With regard to wounds a week old on the teat, with a lot of granulated tissue in them, where milk was escaping,

he did not think any operative procedure was likely to yield a sound teat and a sound quarter. The only thing was to let them go on. The quarter would probably waste away and the milk fistula remain, with the possibility that something might happen at the next calving, when the fistula might be removed, providing there had not been an extensive downfall and fibrosis of the quarter.

Mr. Fletcher had mentioned what was called pip gargil which was not dealt with in his paper. He did not know it under that name: it was usually called a sore at the end of the teat duct. It was undoubtedly a very troublesome thing and very difficult to deal with, but, as he had suggested in his paper, he had found that the injection of a few drops of carbolic oil was excellent, and if that was not successful, the use of the small bougie was a good thing.

With regard to cases of bloody milk, he had dealt in his paper with blood clots, and he had not regarded bloody milk as coming within the scope of his paper. One had to consider the various causes which might give rise to it. When congestion of the udder took place in the manufacture of milk, if there was a weak blood vessel, one could imagine it breaking down and blood escaping, and this might go on for a week and even months. He did not know how that could be contended with. Injections of atropine had been suggested. In one part of his practice, in a certain village, he had two or three cases one summer belonging to various owners, and in all cases these cows went down a nasty clayey lane which had worn into ridges and hollows just about the same distance apart as the feet markings. Cows with pendulous udders, when going down such a lane, had a tendency to flop and swing, and he had no doubt in his own mind that a good deal of the bloody milk was due to that particular lane. He would have liked to hear some suggestions from other members with regard to bloody milk. It was an important question where fresh milk was sold. It was not so important where butter was made, because it came out in the separator, but still it was a very unpleasant thing. He had not found any really definite remedy. His suggestion was to bed them well and see that there was not too much slope on the stall. Sometimes a cow made one or two efforts to get up, and in coming back bruised her udder on the floor.

Mr. Campbell mentioned hesitation before operating on teats. Personally, he thought if one was careful there was not so much need for hesitation as there used to be. One point to watch was that with a cow one was apt to be slack with regard to the use of antiseptics.

With regard to the removal of superfluous teats, it was not the custom in his practice to remove them. In fact, if a man had a heifer with more teats than four he was proud of it. That showed how opinion varied in different districts. With regard to their removal, if that was done it should be done when they were heifers. They should be taken up and the teats clipped off with scissors, which should be a simple matter. In older ones he would say the ligature was likely to be the most satisfactory method of all, because with the ligature one would be more likely to cut off any milk supply and get a perfect closure of the orifice. Some of these supernumerary teats had quite a number of secretory glands behind them and could develop a fistula.

The idea of ligaturing in necrosis of the udder some days before removal in sheep and also in cattle was very sound.

Mr. Sampson had also remarked about the non-success with the spiral; he had dealt with that point. He would like to make it perfect, but he was afraid he could not.

Mr. Ackroyd mentioned that he became more conservative with regard to surgery as he got older. All of them had that feeling, even if they were fond of surgery.

With regard to the case of the injury to the teat of a cow, a prominent gentleman in the dairy business had argued that it was impossible for a cow to bruise her own teat, but they were not always bruised with the feet but with the hock and the lower part of the limbs. Some years ago, in his riding days, he had a mare that kicked her hock badly, and all sorts of hock boots were tried. The only thing that prevented it was a bedding that she could not push away. In the case of a cow bruising the teat repeatedly, he should suggest that that would be one of the best preventives—straw on the top of the peat moss bedding.

With regard to lactic calculi, he had never seen them. If they were large, they must offer some difficulty, but he would just offer the remark that it was astonishing how large a clot and hard cast could be removed with the aid of the injection of a lubricant. For a hard body like a calculus he should be inclined to use an oil thicker than an ordinary carbolic and olive oil, or carbolic acid and rape oil. He should use an oil of more consistency, such as castor oil. In districts where such things were common the removal of these calculi, if they were of reasonable size—up to a quarter of an inch in an average teat—was done by squeezing out at the end of the teat with the aid of a lubricant.

Mr. Fletcher said that with regard to the question of a cow trapping her own teat, he had not referred to bruising but to actual cutting of the teat in such a way that milk exuded from it. It might be interesting to the meeting to learn that as a fact it was possible for a cow to cut her own teats with one of her hind feet. He was called in a little time ago to decide whether a teat-end which was cut almost clean off had been done before the man had bought her or after. The man had only had her a day or two. He came to the conclusion that it had been done since she had been bought. It was a point to remember, because he had heard it argued that it was impossible. It was generally supposed that another cow had kicked the teat, but there were instances on record which had occurred in his own practice where an animal had injured its own teat. With regard to Mr. Ackroyd's remarks as to supernumerary teats, he would like to ask him to instruct his clients, as he himself did, to inspect the calves when they were born, and if there were supernumerary teats to select four good ones and have the others cut off.

Mr. Collinson stated, with regard to bloody milk, he had had fairly good results from injections of atropine in one grain doses. He also found it was a useful drug in cases of hæmorrhage; in fact, it had acted when adrenalin had failed. Some years ago there was an article in the *Record*, translated from the French, in which a medical man recommended the use of atropine in hæmorrhage in consumptives. He himself had used it a good many years, and found that in cases of castration in nine times out of ten the hæmorrhage stopped and one got no recurrence. With regard to the removal of supernumerary teats, he had a few clients who liked them removed, and he always used the ordinary hat elastic one got on children's hats. If they were tied tightly they did not require renewing so frequently as when wax thread was used. The elastic followed it up, and one could get it quite tight, because it was a mixture of elastic and cotton.

Mr. FLETCHER, in moving a vote of thanks to Mr. Hudson for his paper, said they had all listened to the address with the greatest of pleasure. They admired the paper and the method in which Mr. Hudson dealt with the surgical treatment of diseases of the udder and teats of cows. He himself wished he had the confidence and surgical knowledge of Mr. Hudson—he would use surgery more frequently. Personally, he was very conservative. He used carbolic oil and dressings on wounds on cows' udders, and if the cow was doing all right and the wound was not too bad he was so conservative that he let it alone, and did the best he could for his client. Mr. Hudson possessed their confidence as an operative surgeon. He had once seen Mr. Hudson remove a cow's udder, and had declared that if ever he removed one he would be either drunk or daft. (Laughter.) Still, one admired a man who had the courage to do it. They admired him for giving such thought to the deaf quarters of the cow and in inventing an instrument to remedy, because milk nowadays was a

very valuable commodity and very badly wanted, and if a cow was not giving milk in one or two quarters, it was the duty of the practitioner to try and make the cow into a commercial success. Mr. Hudson's careful study of instruments for use in connection with teats deserved their praise, and he had the greatest pleasure in proposing a very hearty vote of thanks.

Col. Bowes seconded the motion, which was carried amidst applause.

Mr. Hudson, in reply, said he did not deserve the remarks which had been made. Probably he had been born with an inclination towards invention. A problem would sometimes prove a great incentive towards thought ; for instance, he had given a great deal of consideration to the little brass instrument he had shown them for dilating the teat. The instrument had to go through an orifice of a little over an eighth of an inch without injury, and then it had to spread out to three-eighths or more. He would like to point out that when he patented his instrument he did so, not with the idea that it would yield him any financial reward, but to keep it off the instrument makers' stalls at shows.

Alleged Poisoning of Horses.

Case Dismissed at Plymouth.

The Western Morning News and Mercury (Feb. 24th, 25th, 29th, March 1st) reports that William George Stoneman, a well-known haulage contractor, was charged at the Guildhall, Plymouth, before Messrs. Walling and Smale, with maliciously killing five horses, the property of Plymouth Transport Company.

Mr. Square (who appeared for the prosecution) said the charges arose out of the deaths of five horses out of nine in the stables of the prosecutors' yard. Two horses were not affected, and the prosecution suggested that this was because they were valuable and were favourites of accused. Of the seven affected, two had practically recovered ; the other five had died in great agony. They had been poisoned by arsenic. On Feb. 3rd, the horses were seen to be off their food and all were taken ill in the course of the day. One died on Feb. 5th, two on the 6th, and two on the 7th. One recognised in bringing a charge of this kind against a man like Stoneman, who had held the respect and friendship of a wide circle of people, that it was a very serious one, but he (Mr. Square) believed he could satisfy their Worships that accused had a good deal to answer for, and if they found that a *prima-facie* case had been made out, they would commit him to take his trial by jury.

In 1919 accused sold his haulage business to Mr. Curtis for £3,500 ; but no sooner was the business transferred than Curtis had cause to complain that accused was carrying a large quantity of herrings, thereby depriving Curtis of that work. At the end of January, 1928, the Transport Company contracted to remove the theatrical equipment of a company engaged at the Palace Theatre, Plymouth. Accused ought not to have been interested in that business at all. He had been carrying for theatrical companies for some years past, but when he heard that Curtis was carrying, he went to the theatre in a very excited state and used strong language. That was on January 30th. It was a curious thing that on the following Thursday the horses were poisoned. On Feb. 2nd, there were 23 horses standing in the stables ; no one but Stoneman entered the yard besides the workmen. It was not unusual for him to be there, and the employees would take no particular notice of his presence. When Stoneman entered the yard, the feeds had been laid out in the stalls of stables 1, 2 and 3. The stores where the foods were kept were locked and the only person who kept the key was the foreman. About 4 p.m. a man named Ede came in, took his horse into stable 3 and would say that he heard accused in stable 2. The prosecution alleged that accused at that time was putting poison in the feeds of the horses. One horse became ill next morning, and during the day others were off their food.

Mr. Gibbings and Mr. Fraser, veterinary surgeons, were called into consultation by Mr. Collings, and found that the horses were suffering from an irritant poison. Stoneman said the veterinary surgeons would not be able to find out what the horses died of. "They cannot tell what is the matter with them. They thought it was anthrax, but it is not. They won't find out what it is." In an interview accused had with Curtis on the day he was arrested, Curtis told him that the horses had been poisoned, but the kind of poison was not mentioned ; accused was alleged to have said : "I have never seen arsenic until this day. It is a white powder."

Evidence for Prosecution.

H. S. Haughton, surveyor, said that, with the exception of a nail hole in a slate, there was no leak in the roof.

B. J. Woodrow, chemist, said that on July 11th, 1927, he sold to accused one pound of arsenic.

F. Wallis, chemist, said he sold to accused one pound of arsenic on June 9th, 1927. On January 31st, this year, he visited the shop and asked him to get some more arsenic ready for him. There were only two other sales of arsenic in twelve months.

F. G. Curtis, managing director of Plymouth Transport Company, said that on February 2nd all the horses were in good health. After the horses had died, accused repeatedly came to him to find out the result of the analysis and said that witness could have the loan of his horses, free of charge, whilst he was in difficulties.

T. B. Ede said he returned a horse to the stable at 4 p.m. on February 2nd and placed her in the stall. The feed had already been put in the manger. He groomed the horse down, and during that time he saw accused come to the door of the stable. He made a remark and then moved to the next stable. With no thought of watching accused he saw him go into stable 2. Subsequently witness left the stable to get water and came back just in time to see accused come out of stable 2. About 20 minutes later he left. The next morning witness noticed the horse refused the chaff feed ; it became ill and died on February 6th.

F. Waldron, horse slaughterman, in the employ of accused, said that at the knacker's yard, Prince Rock, there were thousands of rats. Some months ago accused gave him enough arsenic to fill a ½lb. cocoa tin to kill rats. He mixed some with oats and some with fat and spread it about. He had used none since September, because the Port Sanitary Authority's rat catcher had taken over the job and had been there every day.

The drivers of the affected horses also gave evidence.

E. Philp, foreman stableman, said that on February 2nd he prepared the feeds and placed them in the manger. He was afterwards in the loft for some time and on coming down saw accused in the vicinity of No. 3 stable. Accused said : "I have just said to the wife it is a very good time to go in and have a look at these leaks." They went in and looked at a skylight, and at Stoneman's request he went for a ladder. He returned with the ladder in about two minutes ; witness ascended and examined the roof. They then went to other parts of the premises, after which Stoneman left the yard. On February 11th accused came into the yard and suggested giving beer to one of the horses which was still unwell. He gave witness a shilling to buy the beer ; witness bought the beer and drank it himself.

J. C. Collings, M.R.C.V.S., said he was called to see the horses on February 4th, and found they had a feeble pulse, very cold extremities, purging and abdominal pains. He satisfied himself they were suffering from an irritant poison. The following day he called in Mr. Gibbings and Mr. Fraser, and they carried out a *post-mortem* examination in the afternoon. The illness commenced on the afternoon of February 3rd and he suspected the poison was administered during the evening of February 2nd. Accused did the cutting up of the horse for the *post-mortem*. Witness sent portions of viscera to Dr. Clough for chemical analysis.

Dr. G. W. Clough, Professor of Chemistry and Toxicology at the Royal Veterinary College, London, described analysing

the portions of the carcase forwarded by Mr. Collings, and stated that he found the stomach contents were heavily arsenical. He separated approximately a quarter of a grain of arsenic from one ounce of stomach contents. He also found arsenic in the liver, separating about one-thirtieth part of a grain of arsenic from one ounce of liver. He considered death was due to acute arsenical poisoning. If the stomach contents forwarded were a representative example, he estimated that the animal must have eaten about two ounces of arsenic in the form of arsenic powder. Witness said he would expect some of the following symptoms to be exhibited: dulness, loss of appetite, thirst, profuse diarrhœa, coldness of extremities, trembling, paralysis of hind quarters, abdominal pain and collapse. From the result of the analysis and the symptoms described by Mr. Collings, witness estimated that the horse must have taken the poison some time after mid-day on February 2nd. A poisonous dose of arsenic powder for a horse was from half an ounce to one and a half ounces.

W. Newland, hind, employed by accused at his cowhouse at Marsh Mills, said that rats were kept down there with the aid of six cats and a dog. The rats came and went, but there had never been sufficient to require the use of rat poison or arsenic.

H. Fraser, M.R.C.V.S., described the *post-mortem* examination and admitted that every assistance was given by accused.

F. A. Williams, manager, Palace Theatre, said that on January 30th, accused made a complaint to witness about the Transport Company having got the contract for conveying the effects of one of the companies. He was annoyed about it.

J. L. Pinney, another hind employed by accused at Forder Farm, Ugborough, said he had never used or had any arsenic there.

Detective-Sergeant Cloke said that after the arrest of accused, the latter said that the arsenic he had given Waldron was the only bit of arsenic he had (bought) in his life. "I will tell you what it is. The ——— have insured the horses much above their value and have poisoned them themselves." Witness had ascertained that besides the two pounds of arsenic mentioned by witnesses, accused purchased half a pound of arsenic at Boots', George Street, on September 17th, 1926. Witness added that he had known accused for many years and considered him to be a man who was kind to animals.

Detective-Inspector Hutchings said that at the police station accused said: "It's a funny thing. I ordered some arsenic last Saturday, as we are infested with rats. I have had no poison on my premises for months and months. I am going to get some money out of this. I was in the stables when it was raining, and I went up in the loft to look at the leaks, but their man was with me the whole of the time."

G. E. S. Ross, director, said he was in the Company's office on February 8th, when accused came in and asked if he had received the analyst's report. Witness replied in the negative, whereupon accused remarked: "They don't know what it is."

Detective-Inspector Lucas said accused alleged that the Transport Company had poisoned the horses themselves to get the insurance money.

G. B. Martin, insurance inspector, said that when accused drove him to his knacker's yard, he (accused) remarked that it was a funny business and commented on the number of losses sustained by the Company, saying he had not come across anything like it in the whole of his experience. The Insurance Company were quite satisfied that the horses were not over-insured.

The Defence.

Opening the case for the defence, Mr. Isaac Foot said accused was absolutely innocent. They were dealing not with a vagabond, but with a man of unblemished character, who had been 57 years in the town. The heaviest weight to be put in the scale was that clean character gained during 57 years. He was a man of very tender heart, and particularly a man with care and fondness for animals. The assumption was all against his suddenly doing a hateful and cruel thing, a most malignant thing, and inflicting that cruelty upon those animals. "For three long days we have had inference, coincidence, conjecture, surmise and suspicion, but no proof." The case rested upon two main pillars, and if either went, he submitted the case went with it. One pillar was that the horses died of arsenic and accused was possessed of arsenic some time ago. The other pillar was that he was in the yard on the afternoon of February 2nd and the horses were probably poisoned on that day or about that time. It was true accused bought arsenic, but every speck of that arsenic could be accounted for by him. The theory for the prosecution changed during the hearing. Originally it was suggested that accused slipped into the stalls while a man was away getting a ladder to examine the leaks. But accused could not get into stable 3 unless Ede got out. The second theory was preposterous; it was suggested that in the bare interval of 48 seconds he was going to slip in, taking the risk of being heard and seen. If he (Mr. Foot) came to circumstantial evidence he had a great deal to show the man was innocent. On the Sunday when he went to the veterinary surgeons, he was under no obligation to do so. He suggested that the material should be kept for subsequent examination, although if he was a criminal, it would have been to his advantage to get it out of the way. He offered assistance, the fair offer of a decent-minded man, who saw the others were in distress.

Accused gave evidence on his own behalf. He said he never interfered with any of Curtis's clients. He admitted buying a pound of arsenic on June 9th, 1927, because he was infested with rats. He gave the packet to Waldron and had never seen it since. On July 11th, 1927, he bought another pound of arsenic; he took this to his Plymton farm on July 11th and put the arsenic into rat holes with a spoon. He saw no more of that pound of arsenic after that day. In September, 1926, he purchased half a pound of arsenic at Boots and used the whole of this by putting it in rat holes and mixing what was left with oats, which he placed in a small box. He had no arsenic in his possession on February 2nd. On the afternoon of February 2nd he went to examine the stable roof for leaks. He passed stable 3 and remarked to Ede: "I am going to see where the water is coming through into the workshop." As he reached stable 2 Philp met him and he asked Philp to get a ladder. While he was gone accused came outside. He never saw anyone fetch any water while he was there, nor did he go in stable 3 at any time that afternoon. He did not know how the horses were stabled and had never been there when the horses were stalled. He was not absent from his house more than ten minutes that afternoon.

In cross-examination, witness said that on July 11th he did not mix the arsenic with any food, but put it down in the holes raw. Accused agreed with the expert evidence to the effect that the animals had been poisoned through the meal they ate on the evening of February 2nd and said he believed all the horses were fed from the same store.

Mr. Square: If that stock was poisoned, would you not expect all the horses fed that night to show the effect of the poison?—It is nothing to do with me.

Mr. Square: As there were no signs of poison in the nose-bags it is obvious that these seven horses must have had their feed poisoned after the feed was put into the mangers?—It is nothing to do with me. Questioned as to the deaths of a number of other horses in 1927, accused replied: "They had the pink-eyed fever there." It is rather curious that out of five horses in the stable four are poisoned and one is left, and the one that is left is in the stall with a glass window?—It is curious. I suggest the person who put the poison in that stable deliberately avoided going into that stall because he knew he was liable to be seen from outside?—I don't know anything about that.

And I suggest that the person who avoided that window had a good knowledge of the general geography of the stable?—That is nothing to do with me.

I suggest you are the only man who could have done it, the only man there, and the only man who had the oppor-

tunity of placing this arsenic in the horses' feeds after the feeds are out in the stalls and before the horses come in.—That has got to be proved. I say I did not do it.

Witness said he knew the horses were poisoned when they were opened. "If I had poisoned the horses I should not have kept the stuff for people to analyse, because I know everything can be found, and I know when a horse or bullock is poisoned as soon as I see them opened." He denied having said that the veterinary surgeons would be unable to find out the cause of death.

Mrs. Stoneman, wife of accused, said her husband returned within about ten minutes after leaving the house on the afternoon of February 2nd.

G. H. Brimacombe, an employee of accused, said that accused in July last put arsenic in a baking dish and then, with a big spoon, placed some of it in various rat holes at Plympton. Some that remained was mixed with barley meal and placed in an outhouse.

Evidence as to character was given by G. R. Britton, Tavistock, who said he did not consider accused capable of such an offence as was charged against him.

A. W. Jackson said he had always found accused very fond of horses and exceptionally careful of animals. It would be almost impossible to believe him guilty of such an offence.

The Justices retired for 20 minutes. The Chairman said they had given profound attention to the evidence in what had been a very long, complicated and difficult case. They were of the undivided opinion that the evidence did not justify them in sending accused for trial by jury. The decision was received with applause from the members of the public.

Foot-and-Mouth Disease.

South-American Meat. Mr. Guinness, replying to Mr. Hurd in the House of Commons on February 27th, said that in March, 1927, the Ministry of Agriculture asked three of the Governments of South America which exported meat to this country to accept certain proposals designed to prevent the introduction of virus of foot-and-mouth disease into Great Britain. Last December Lord Bledisloe, then Parliamentary Secretary, conferred with representatives of the Argentine, Uruguayan, and Brazilian Governments. As a result, the Argentine Government issued a decree, which took effect on February 1st, the main provision of which was that the carcases of infected animals, and those which had been in immediate contact with them, should not be exported to Great Britain. The Uruguayan and Brazilian Governments had adopted similar regulations. Lord Bledisloe reported that all three Governments were increasing their efforts to get foot-and-mouth disease under control. A British inspector, who was stationed in the Argentine Republic, reported that the disease was endemic. In a second progress report the Foot-and-Mouth Disease Research Committee had reported that in two instances the bone marrow in carcases of experimentally infected animals, which had been frozen or chilled for seventy-six days, remained infective. There was thus experimental evidence that chilled or frozen carcases of infected foreign cattle might introduce disease to this country, but there was no conclusive evidence that this happened under ordinary trade conditions.

In the same connection, the following letter appeared in *The Times* of Monday last:—

Sir,—The essence of the reply of Sir Kingsley Wood in the House of Commons a short while back, in answer to the question of Dr. Davies, has apparently not been assessed at its true value. The inquiry was "Whether any South American meat arriving in this country showed any evidence of foot-and-mouth disease." The reply in question as printed was "No instance of suspected foot-and-mouth disease in meat imported into this country from South America has been reported."

As the classic lesions of foot-and-mouth disease appear on the feet and in the mouth of cattle, and these parts are removed in practically all carcases coming into this country, I would point out that meat inspectors could hardly be human if they were able to find lesions on parts which were not present, although the rest of the carcase might be infected. In the case of the pig carcases imported into this country from the Continent found to be marked with lesions of foot-and-mouth disease, which is probably within the memory of the readers of *The Times*, the feet and head were not removed as is the custom, and although possibly the carcase would be scalded, the lesions would not be completely destroyed. Should not carcases of meat from countries infected with foot-and-mouth disease be required to be whole and intact with head, tongue, and feet, complete when imported?

I am, etc.,

WILLIAM S. STEVENS, M.R.C.V.S.

. . . . . .

Changes Effected by New Order. The Ministry of Agriculture draws the attention of local authorities, in a branch circular letter number 99 to certain changes effected by the new Foot-and-Mouth Disease Order. The most important change is the simplification of the procedure for declaring and freeing infected places. The cumbersome procedure laid down by the repealed section of the Act of 1894 is abandoned, and under the new Order the limits of the infected place will be prescribed and the rules imposed by a notice served by an inspector of the local authority immediately upon receipt by him of notice of the suspected existence of the disease. The notice will remain in force until withdrawn by the Ministry. In negative cases the Ministry will arrange for the form to be withdrawn on the spot by the veterinary inspector of the Ministry dealing with the case.

Among the new provisions affecting the detention and examination of animals on other premises which are found by inquiry to have been exposed to a risk of infection is one making it obligatory, instead of as hitherto optional, for an inspector of a local authority to serve a notice in respect of any animal which he is informed, or has any reason to believe, has been exposed to a risk of infection.

The circular concludes with an appeal to local authorities for whole-hearted co-operation in perfecting the organisation for dealing with invasions of the disease from abroad.

. . . . . .

Mons. Tonnelier's Cure Claim. In the lay press an announcement has appeared concerning the claim made by Mons. G. J. Tonnelier, of Paris, to have found a cure for foot-and-mouth disease. Replying to a question on the subject in the House of Commons, Mr. Guinness said that the French Ministry of Agriculture had promised to inform him if the claims were substantiated.

Mr. Guinness, however, did not think it would be justifiable to test the cure by the isolation of a few infected animals here. "If we get strong evidence that this treatment is an effective preventive of foot-and-mouth disease," he added, "the Research Committee would no doubt consider the question of testing it in this country."

PERSONAL.

Mr. Daubney honoured by Kenya B.M.A.—At a meeting of the Kenya Branch of the British Medical Association, held at Nairobi, on November 9th, 1927, Mr. R. Daubney, M.Sc., M.R.C.V.S., deputy chief veterinary research officer, was elected a complimentary member of the Branch "in recognition of his distinguished scientific work and the assistance he has always given to medical men in the Colony."

. . . . . .

Appointment.—Among the appointments made by the Secretary of State for the Colonies during the month of February was that of Mr. R. S. Kyle, M.R.C.V.S., as Veterinary Officer, Tanganyika Territory.

. . . . . .

A County Honour. On behalf of our readers, we offer our hearty congratulations to Major H. G. Lepper, J.P., M.R.C.V.S., of Aylesbury, on the well-merited honour of his appointment as a Deputy-Lieutenant for Buckinghamshire, after a long period of magisterial service for the County.

The Veterinary Record.

17th March, 1928.

THE R.C.V.S. REGISTER, 1928.

The 1928 edition of the Register is now published, and is in process of distribution to members of the College. It is a book of 370 pages, and contains, in addition to the useful information which we are accustomed to find, several new features. The most valuable and important of these is a list of whole-time Veterinary Officers, which contains the names of 35 Veterinary Officers of Counties, and 48 Veterinary Officers of Cities and Municipalities. This is a list which will grow in importance as veterinary public health services develop.

The number of members on the new Register is 3,486, inclusive of 22 whose names may be removed during the year if a proper address is not supplied to the Registrar. The number of Fellows of the College is 247, and there are 75 holders of the D.V.S.M.

The book has been well revised and brought up-to-date, and it would be well for the profession if a larger number of members than we fear is actually the case, took an interest in its contents.

No pains have been spared by the Registrar to make it a reliable Year Book, and we owe it to ourselves to take full advantage of his labours.

H.M. Stationery Office Publications.

The undermentioned have been published recently. Copies can be purchased through any bookseller, or directly from H.M. Stationery Office, at the following addresses:—London: Adastral House, Kingsway, W.C.2, and 28 Abingdon Street, S.W.1; Cardiff: 1 St. Andrew's Crescent; Manchester: York Street; Edinburgh: 120 George Street

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House of Commons Bills, 1928		
17. Dogs Act (Amendment). To Amend the Dogs' Act, 1906 ...	0 1	0 1½
23. Slaughter of Animals (Scotland). To provide for the Humane Slaughter of Animals in Scotland	0 1	0 1½
45. Exportation of Horses. To amend the law with repect to the exportation of horses	0 1	0 1½
Agriculture and Fisheries, Ministry of:—		
Live Stock. Report on Dr. Serge Voronoff's Experiments on the Improvement of (24-0108-00-00) ...	0 9	0 10
Statutory Rules and Orders, 1928:—		
48. Animal. Diseases of Animals. The Foot-and-Mouth Disease (Boiling of Animal Foodstuffs) Order of 1928, dated February 7, 1928 ...	0 1	0 1½
81. Ditto. The Sheep Scab Order, 1928. Dated February 25, 1928 ...	0 10	0 11
House of Commons Reports and Papers, 1928.		
16. Development Fund Accounts, 1926. Together with the Report of the Comptroller and Auditor-General thereon	0 3	0 3½

CLINICAL REPORT.

Influenza in Dogs ?

By Herbert Buckingham, M.R.C.V.S., Norwich.

A Griffon bitch, 2½ years old, was brought to me on January 8th, 1928, suffering from brain trouble. She would turn round and round, sometimes one way and then the reverse, until she fell down exhausted, after which she would stretch her front legs out and put her chin on the floor, with her hind quarters upright, frequently vomiting her food and eating it again if she had the chance.

During the time she was with me she gradually became worse and weaker, shrinking almost to a skeleton. For four days she was semi-conscious and so bad that at the end of the fourth day I made ready the chloroform to "put her to sleep"; then I changed my mind and gave her a chance until the next morning. When morning came she had almost recovered. On January 15th, 1928, she was so much better that I sent her home convalescent; she was reported to me as quite well, playing with her two-months'-old pups, as well as running after a ball and gaining flesh.

However, on January 22nd, 1928, she had another similar attack and came to me again. Her owner told me she started this time by "snapping in the air at imaginary flies." She became as bad as she was before; a large patch of eczema appeared on her forehead; she was totally blind from conjunctivitis, which caused opacity in each cornea, and so weak that she could not mount and descend steps. Again she had to be spoon-fed; in fact, she was even worse than she was before, but in view of her previous rapid recovery I gave her another chance. Events have proved that I was right in doing so, for on February 13th, 1928, she had quite recovered in all ways and remains so to-day (February 28th, 1928).

I have had numerous dogs suffering from this disease during the last 12 months but comparatively few cases of distemper. I wonder if other veterinary surgeons have had the same relative experience in the two diseases. Again, in my opinion (formed from previous cases of influenza) the second illness was *not* a relapse but *another* attack of the disease. Very often the second case, in the same animal, is more severe than the first and frequently ends fatally.

Sometimes I have had a case of influenza brought to me and after treating it for two or three weeks distemper has supervened.

I am firmly of the opinion that in these cases influenza has reduced the animal's power of resistance and distemper has developed after the attack of influenza.

It has been said that this is a new disease. I beg to differ, for I saw plenty of it in the middle 'nineties, when it was said to have decimated the dogs in Great Britain.

The Standing Committee (General Merchandise) appointed by the Board of Trade announce that their inquiry as to whether surgical, medical, dental, and veterinary instruments, dental supplies, and dental furniture should bear an indication of origin, will be held on Monday and Tuesday, March 19 and 20.

DIVISIONAL REPORTS.

Yorkshire Division.*

Annual Meeting at Leeds.

The Annual Meeting of the Yorkshire Division was held at the Hotel Metropole, Leeds, on Friday, February 3rd, 1928, with the President (Mr.W. Ackroyd, of Halifax) in the chair. There were also present Messrs. Gentle, Sampson, Collinson, Blackburn, Whitehead, Proctor, Halstead, Rankin, Bowman, Pollard, Ellison, Campbell, Dixon, Hayes, Scott, Pratt, Bowes, Clarkson, Smyth and Fletcher. *Visitors*: Messrs. Hudson and MacGregor.

The Chairman said that unfortunately they were without the services of the Hon. Secretary (Mr. T. C. Hall), who was suffering from a cold and an accidental burn. His first duty was to remind the members of the death of Earl Haig, an event which concerned everybody, owing to the fact that he was a great soldier and a beloved man, but which specially concerned their own profession, because Earl Haig had accepted the position of Honorary Associate of the Royal College of Veterinary Surgeons.

The members rose silently in their places as a token of tribute.

The Chairman said that the Society had lost during the year Mr. Philip Deighton, who had been so long connected with the Society that he was an honorary member. He had been a member of the profession for a very long time, and was known to most of them—to some of them very intimately. They had also lost Mr. Sam Chambers, of Huddersfield, an old member of the profession, who succeeded his father in practice as a veterinary surgeon; Mr. Cowburn, of Eastwood, who had been a member for many years; and Mr. Hogman.

The members rose in silence for a moment as a tribute of respect.

The minutes of the last annual meeting were taken as read.

Correspondence.

(I) From the Lancashire Veterinary Medical Association, asking if the Yorkshire Division would amalgamate with the Lancashire and other Divisions, as previously, in sharing the expense of the issue of a joint circular in connection with the forthcoming election of the Council of the Royal Veterinary Surgeons; and asking the name of the Yorkshire candidates.

The Chairman said the Council had been in favour of co-operation on the lines suggested, and the meeting concurred.

On the motion of Colonel H. G. Bowes, it was unanimously agreed that the candidates to be nominated should be Mr. D. S. Rabagliati (Wakefield), and Mr. J. Clarkson (Garforth).

(II) From the National Veterinary Medical Association of Great Britain and Ireland with regard to the resolution which the Yorkshire Division had forwarded to the Association suggesting the advisability of instituting a bye-law providing that a student should spend at least twelve months in contact with actual practice before presenting himself for the diploma. The Council had considered this resolution, but whilst in entire sympathy with the principle, it was not convinced that a practical scheme could be put into operation, and was therefore unable at present to support the resolution.

(III) From the National Veterinary Medical Association with regard to the resolution passed by the Yorkshire Society to the effect that the Society was in favour of any attempt to find a more humane method of preparation for slaughter by the Jewish method. The letter stated that the Committee were in entire agreement and were closely following the demonstrations that were being made by the Weinberg casting machine. A Committee, upon which the profession was very strongly represented, had been appointed in connection with these demonstrations, and as soon as its report had been issued the matter would be gone into further.

(IV) From Camden Town, acknowledging the receipt of a cheque for £10, being the donation of the Yorkshire Division to the Royal Veterinary College Re-Building Fund. Lord Northbrook asked that the sincere and grateful thanks of the Governors should be conveyed to the members for their donation.

New Members.—Mr. J. C. Ross, of Wakefield, Mr. R. S. Smythe, of Harrogate, and Mr.W. T. McGregor, of Skipton, were elected members of the Division.

Presidential Address.

The Chairman said: First I have to thank the Society for electing me as President for this year. It is necessary that somebody should occupy the position which turns the official wheels, and I have so often and so long enjoyed these meetings, both on their strictly professional and instructional side and on their social side, that I felt I could not constantly refuse to accept a turn in the Chair as President. I hope that, during the meetings which follow, you will bear with me, and I know you will assist me as much as possible in the conduct of the meetings.

We have had the sad duty of remembering those members who have gone from us; and I would now like to welcome all those who have become members since the last Presidential address and to assure them that we look to them for the help in carrying on the work of the Society. If they will come to the meetings and take part in the discussions and offer to the other members the results of their own experience and their opinions on various subjects, they will help themselves and they will also help the rest of the members of the Society, in addition to finding that it is a very agreeable break in their work. No more valid excuse can be given to oneself or to that other person who usually wants an excuse than attendance at a meeting of your own professional Society.

As an old student under him, I should like to refer to an event which has a certain significance, and that is the retirement of Sir John M'Fadyean from active work in the veterinary profession. It is a long time since I sat under Sir John M'Fadyean. It was in 1886 that I first went to Edinburgh, and in every session he was my teacher in anatomy or pathology. Sir John M'Fadyean for a long time has played a conspicuous part in our profession. It was due to his work more than to that of any other in the early days that we began to take our proper place

* Received February 29th, 1928.

professionally in the newer study of experimental pathology which at that time was progressing rapidly. He has filled the position of head of the College with great credit to the veterinary profession, and I think we may claim him to be, in the matter of pathology and certainly of veterinary pathology, an international figure. (Hear, hear.) I hope he will enjoy his retirement from active service in the College for many years to come. Personally, I certainly enjoyed sitting under him as a teacher. The bent of his mind, his humour, and his capacity for keeping a class in order, are things I remember well. Youth is a very ebullient thing, but it never boiled over in John M'Fadyean's class. (Laughter.)

I should also like to refer to the new appointment which has been made, because its scope and its effect on our profession will be marked. I am sure we can all of us congratulate Professor Hobday on having assumed such an important position as Principal of the Royal Veterinary College, Camden Town. (Applause.) To those in general practice it is a singular encouragement that a man should come from general practice to be head of a teaching institution. The work which Professor Hobday has done in popularising veterinary surgery has been very useful, and he has been a very willing missioner in carrying, both by precept and example, the teaching of veterinary surgery into all the corners of the British Isles.

With regard to the other appointments, Dr. Hare is not so well known to us, but we look to him to carry on the very important work which his appointment involves.

It had been my intention, if I could have had a few consecutive hours, to draw attention in somewhat orderly fashion to the changes I have witnessed in the practice of the science and art of veterinary practice since the years when I qualified in 1890, but I found it impossible to do that adequately in the time at my disposal. I found, however, that I was forcing myself to the very curious conclusion that, contrary to what I had thought before, the general advance in the application of hygienic principles in new drugs, in better methods of administering drugs, and in diagnosis had been of more benefit to me in my work than had the more highly-coloured and advertised progress in biological treatment. That, of course, would not apply to practice in the oversea countries, but it is a conclusion that I would like some of you who have had thirty or forty years in practice to turn over in your minds and endeavour to assess fairly.

I remember, I think it was in 1890, the tremendous excitement in the world when the impetuous young Kaiser Wilhelm announced that a German savant, Professor Koch, had discovered a cure for consumption, and people flocked to Berlin from all over the world. I think Sir Henry Simpson, who was then a member of the Council of the Royal College of Veterinary Surgeons, moved that someone should be sent to represent the College in order to investigate what this great discovery meant. We all know how little, from a curative point of view, has resulted, and how the utility of tuberculin has ultimately boiled down to its use by us and sometimes by the medical profession as a diagnostic. It only shows that advancement in science is usually slower than those who shout quickly would try to make one believe.

Another point that occurs to me in surveying my experience is that the maker of biological preparations may work out things in the laboratory as being accurate and reliable, but the conditions of work in the field, the limitations of cost, and the opposition of various people limit the usefulness which pure science might be to us if it had a full and unfettered run.

There may be one or two members who will have to bear with me while for a moment I voice the feelings of the majority of our members in saying that the general practitioners, especially those getting older, are feeling a good deal of perturbation as to the future position of those who remain in general practice, in that the appointments which are being made in every direction—many of them absolutely essential and inevitable—may possibly in future extend in so many directions that the attenuated practice of the general practitioner, caused by the disappearance of the horse, will not be made up by new advances. That work will be taken over, I am afraid, if we do not bestir ourselves, entirely by centralised staffs not dependent for their livelihood upon the general public. We can look at the question in many ways, but I have certainly felt recently that the general practitioner will have to bestir himself and try to make numbers and weight tell in favour of retaining a good deal of the work which now seems likely to go from his hand. That modern administration of preventive veterinary medicine cannot be supported and carried on without whole-time men is not inevitable, and those in general practice ought to see to it that we have some share in that work. (Applause.)

Colonel H. G. BOWES moved a vote of thanks to the President for his very instructive address. He could agree with everything that had been said.

Mr. J. CLARKSON, in seconding the motion, said it had been an extremely interesting speech, though there were one or two matters in it with which he himself did not agree.

The motion was carried amidst applause.

Mr. HUDSON then delivered a paper on " Some Diseases of Udder and Teats of Cattle." [Mr. Hudson's paper, and the discussion which followed, are reproduced at the commencement of this issue of the *Record*.—Ed.]

Upon the proposition of Mr. FLETCHER, seconded by Colonel BOWES, the essayist was accorded a hearty vote of thanks for his paper.

ANY OTHER BUSINESS.

Mr. H. POLLARD (Wakefield) proposed that any member of the Yorkshire Division who was a member of the Royal College of Veterinary Surgeons should automatically become a member of the Council of the Division. It appeared to him that it would be deplorable if, through any oversight, a member of the Council of the Royal College of Veterinary Surgeons who was a member of the Division should not be elected a member of the Council. It might occur by oversight. A man who was a member of the Royal College of Veterinary Surgeons was behind the scenes and could help the Society greatly in the Council meetings.

Colonel BOWES seconded the motion.

The CHAIRMAN said that Mr. McCarmick had called his attention to Rule 14, which provided that any member intending to move a resolution of any kind be required to

give notice to the Secretary in writing at least fourteen days before the meeting at which the resolution was intended to be proposed, such resolution to be printed on the agenda convening the meeting.

Mr. POLLARD said notice had been given about three months ago to the Secretary, and evidently it was an omission from the printed agenda.

The CHAIRMAN ruled the matter would have to be left over until the next meeting.

Mr. E. H. PRATT said he would like to bring a matter before the notice of the Society. At the present time there was a strong movement in favour of eradicating tuberculosis, and the Milk and Dairies Order and the Tuberculosis Order were eliminating some of the "wasters," but at present there was no encouragement to a man who wished to take reasonable precautions to rid his herd of tubercle. He got no assistance. His idea was to ask the Government to give some aid to farmers who carried out the tuberculin test and who adopted reasonable measures to abolish tuberculisis. That had been done at Garforth and demonstrated to be a success; but it was expensive and rather beyond the means of the smaller men. His idea was that where a man was open to adopt a scheme of eradication, the Government should help him in financing the cost. The same would apply to a breeder who freed his herd and who should be given a certificate that his stock had passed the tuberculin test, If that were done it would help towards getting sounder animals, and it would assist a man who adopted the system if he could get a certificate for his stock when he sold it. Animals would be provided in that way to replace those destroyed. At present, dairymen had nowhere to purchase tested stock. If they wanted to buy tested stock they had to go to a dealer and get them tested, which cost a good deal.

Colonel BOWES said it was a very important subject and he would support action on the lines suggested, but it was a matter that required very careful consideration, and he did not think a resolution should be passed hurriedly at the tail-end of a meeting. He would suggest that it be left over until the next meeting and that a resolution in Mr. Pratt's name be put on the agenda in order that it might be more fully discussed.

Mr. G. E. BOWMAN (Leeds) endorsed what Colonel Bowes had said. It would break a man under present conditions to try and get a herd free from tubercle. Many times he had tested forty cows and found 28 or 30 that reacted.

Mr. PRATT said that it had been demonstrated at Garforth that it was possible. He knew of one gentleman who had done it on three different occasions with three different herds, and had been successful each time. When he sold the stock, although some of the cows were old, everyone was surprised at the prices that were realised. That was because they were advertised as tested cows.

The meeting concurred with the view expressed by Mr. CLARKSON that the best way in which to deal with the matter, would be to allow Mr. Pratt to bring the subject forward as a matter for discussion at the next meting.

The meeting concluded with a vote of thanks to the Chairman.

T. C. HALL, *Hon. Secretary.*

Lincolnshire and District Division.

ANNUAL MEETING AT GRANTHAM.

The Annual General Meeting of an association of professional men is, *ipso facto*, an occasion of importance, and one from which no member should absent himself if, even at no little inconvenience to himself, he can contrive to be present. It was, therefore, frankly disappointing to the officers of this Division to find themselves supported by only six members out of a possible total of seven times the number, when the Annual General Meeting was held at Grantham on the 9th of February.

The President (Mr. F. L. Gooch) occupied the chair, and there were also present Messrs. W. W. Lang, G. Lockwood, J. H. Poles, E. Porter Smith, F. H. Sugden, H. Caulton Reeks, and the Hon. Secretary, Mr. H. C. Reeks, jun.

The receipt of apologies for absence was announced from Messrs. T. B. Bindloss, W. W. Grasby, A. J. Hines, W. J. Ironside, T. Knowles, H. P. Standley, C. W. Townsend, H. H. Truman, and E. Wardrop.

The *Minutes* of the previous meeting, having been published in the *Record*, were taken as read and were confirmed and signed.

ELECTION OF OFFICERS.

President.—Mr. W. A. Dickinson, of Crowland, was elected to this office in his absence, on the proposition of Mr. Reeks, sen., seconded by Mr. Lang.

Vice-Presidents.—The retiring President, Mr. Porter Smith, and Mr. Reeks, sen., were elected.

Hon. Secretary and Treasurer.—The re-election was made of Mr. H. C. Reeks, jun., on the proposition of Mr. Lang, seconded by Mr. Gooch.

The next business was the election of a committee to deal with the formation of a Veterinary Inspectors' Section within the Division.

The CHAIRMAN, speaking to this matter, said that those who had been present at the last meeting of the Division would remember that the question of the establishment of a Veterinary Inspectors' Section was the subject of a long and fruitful discussion, of which the outcome was the item on that afternoon's agenda relating thereto. It was proposed that notice should be given of the proposal to establish such a section, which was a recommendation made by the "National" to all its Divisions. As they knew, an important innovation had been made last year at the Annual Congress of the N.V.M.A. (following an unsuccessful effort to establish it some years previously) in the creation of a section of Congress set apart for the consideration of matters particularly affecting veterinary inspectors, and at that section certain important papers had been presented and discussed. It had been very properly felt that that process could with advantage be carried to the Divisions, who were consequently urged by the parent body to establish Veterinary Inspector Sections. He would like to know the names of those who would serve on the Committee charged with the duty of forming the Section for that Division. He did not think it need be a large Committee, because it would only have to bring the Section into being, and every veterinary inspector in the Division would necessarily be a member of that Section.

Mr. POLES proposed that the Committee be constituted of one representative from each County Council within the Division. He added that at certain times the work of the Section it had been agreed to establish would be very important ; there would be urgent matters with which they would have to deal and for the consideration of which it was necessary that they should meet together at other times than those fixed for the holding of the ordinary meetings of the Division.

Mr. LANG proposed that those members of the Division who were veterinary inspectors should constitute the Committee. He did so for the reason that, judging by the attendance that day, it was not at all likely that, even though all their veterinary inspector members would be serving, they would get an unduly large number together.

This proposition was seconded by Mr. SUGDEN and, in the absence of a seconder to the motion by Mr. Poles, carried without dissent.

Election of New Members.—A gratifying feature of the meeting was the election to membership of four gentlemen, none of whom, however, was present. They were Messrs. Geo. Eaton (Market Harborough), Gooch, Jun. (Stamford), J. Marshall (Horncastle), and R. Swaby (Gainsborough).

Nomination.—Mr. R. W. Watchorn (Ministry of Agriculture at Grimsby) was nominated to membership.

Correspondence.—A letter was read from the Secretary of the Royal Sanitary Institute, inviting the Division to send a delegate to the Annual Congress of the Association to be held at Plymouth from July 16th—21st.

The CHAIRMAN having asked if it was the wish of the meeting that a representative be sent, Mr. LANG reminded the members that Mr. Gooch had always attended on their behalf in the past, and moved that he be asked to do so again.

The CHAIRMAN replied that he did not know how he would be placed at that time. In any case, he thought it might be well if they appointed someone else, as he was a member of the Royal Sanitary Institute, which presented an opportunity for them legitimately to secure additional representation. It behoved the veterinary profession to interest itself in such congresses as those of the Royal Sanitary Institute and to make its presence increasingly felt thereat. That Congress was one of the factors to which they must look for support for the profession, the members of which must undertake to present its viewpoint on such occasions. If the veterinary profession did not show up well there, the sanitary inspector would over-run their men in many of those public appointments which were becoming increasingly recognised as the proper sphere of the veterinarian.

Mr. LOCKWOOD seconded the proposal that Mr. Gooch should act as delegate for the Division, and the proposition was carried unanimously.

THE LONDON COLLEGE APPEAL FUND.

The CHAIRMAN said they would all, of course, be interested in the appeal which was being made for funds to re-build and re-equip the Royal Veterinary College, London. In connection with that, he wished to draw their attention to the fact that Lady Exeter was organising an amateur arts and crafts exhibition in aid of the fund and of local nursing organisations, which was to be held at Burghley House, on Wednesday and Thursday, May 30th and 31st. Lady Exeter called on him recently and asked him if he thought that veterinary surgeons and their ladies in the district would run a stall of their own in connection with the exhibition. On the second day the Northamptonshire Agriculture Show was to be held in the Park of Burghley House, and Lady Exeter thought the ladies could interest themselves in the exhibition and the gentlemen could attend the Show. He had written to the secretaries of the Central and of the Midland Divisions asking them to take the matter up. He had also informed Lady Exeter that he would be attending the meeting that day and would be next week at Birmingham at the meeting of the Midland Division. The question for them to consider, therefore, was whether those present would arrange with their ladies for the latter to assist. The organisers of the exhibition wanted the local members of the veterinary profession to make themselves entirely responsible for the stall, and he was confident that the project would appeal to them, as it was one way in which they could assist the re-building fund. If a committee of local ladies was appointed they could meet at his house at any time, and they could use it as the collecting place for the articles it was proposed to exhibit. It was an arts and crafts exhibition, so anything that had any relation to arts or workmanship would be welcome. He believed the exhibition was going to be a big thing, and it might be the means of raising a nice sum of money for the College. He had it in mind that the Hon. Secretary might draw up a circular letter drawing the attention of their members to the matter, and sending it round with the schedule of the exhibition to every member of the Division.

The Chairman's suggestion was approved by the meeting, and the Hon. Secretary undertook to draw up the circular letter. Mr. Gooch said that he would have much pleasure in reporting to Lady Exeter the Division's decision to co-operate in the manner requested by her.

VOTE OF THANKS TO THE RETIRING PRESIDENT.

On his vacating the Chair, the retiring President, Mr. GOOCH, said that, owing to pressure of work, he had not been able to do as much for the Division during his year of office as he could have wished. He did not take up a thing, however, without putting his back into it, and he could assure them that he had done the best he could under the circumstances. (Hear, hear.) When one was getting near three-score years and ten one did not feel that one could do justice to the duties attaching to such a position. Nevertheless, he had the interests of the Division as much as ever at heart, and anything he could do in any capacity to further its interests he would be only too pleased to do, and not only for that Society but for the profession as a whole. (Applause.)

Mr. POLES said that they should not allow that meeting to terminate without passing a hearty vote of thanks to Mr. Gooch for his work during his year of office as President of the Division. Mr. Gooch had said that he had not been able to do as much as he would have liked to have done, but he was sure that all the members were more than satisfied. (Hear. hear.) They also remembered that during all the years that Mr. Gooch had been associated with the Lincolnshire and District V.M.A. he had always

done a very great deal of work on its behalf and on behalf of the veterinary profession.

The vote of thanks was carried with enthusiasm, and, in acknowledging the tribute, Mr. Gooch stressed the importance of the members of the veterinary profession standing out for the maintenance and improvement of their status, that they should take their rightful place socially, professionally, and officially.

The meeting terminated with an informal discussion on matters largely concerning local veterinary inspectorship work. In the course of this discussion, however, Mr. Lang raised a matter of general interest in expressing disapproval of the action of several practitioners of his acquaintance who relied solely upon the subcutaneous test when testing bovines with tuberculin. He thought that much the most reliable procedure was the adoption of the triple test—the subcutaneous - ophthalmic - intradermal. Mr. Porter-Smith related, as an instance of the philosophic acceptance of the verdict of the tuberculin test by enlightened owners of valuable animals, an incident in which he was concerned, when he tested two fine young Shorthorn bulls. Both reacted, much to the alarm of the bailiff, who exclaimed : " Whatever will the owner say ? " When that gentlemen was informed, however, his sole comment was : " You have got some fine tuberculin there ! " (Laughter.)

H. C. REEKS, Jun.,
Hon. Secretary.

North Wales Division.*

ANNUAL MEETING AT RHYL.

The Annual Meeting of this Division was held at the Imperial Hotel, Rhyl, on Thursday, December 22nd, 1927. The President, Mr. J. Matthews, occupied the chair, and the following members were present : Messrs. Booth, Cartwright, Llewelyn Jones, Wynn Lloyd, Dr. Share Jones, Messrs. Wynne and H. V. Hughes (Hon. Secretary). The visitors included Lieut.-Col. Brittlebank and Mr. W. Brown (Aberdeen). Apologies for absence were received from Mr. Cane, Major Hobday, Mr. R. Jones, Dr. Montgomerie and Mr. Savage.

The minutes of the previous meeting were confirmed.

Correspondence.—A letter from Dr. A. L. Sheather, late of the Royal Veterinary College, London, was read. It was resolved that his application for registration under the Vivisection Act receive the support of the Society.

ELECTION OF OFFICERS : The officers were re-elected *en bloc*, as follows : *President*, Mr. J. Matthews ; *Vice-presidents*, Mr. Mills and Dr. Share Jones ; *Treasurer*, Mr. R. Jones ; *Secretary*, Mr. H. V. Hughes. The above, together with Dr. Montgomerie and Mr. Wynne, comprise the *Council*. Dr. Montgomerie and Mr. Savage were appointed *Auditors*.

The PRESIDENT, after welcoming Mr. Brown, then called upon him to deliver his address, entitled " Wylins fae my wallet."

Mr. BROWN was warmly applauded on rising to address the meeting. He had, he said, only just completed a strenuous tour of the country, examining at the various centres for the M.R.C.V.S. Under these circumstances he did not feel quite at his best, and he begged the members to overlook any shortcomings in his address. He intended to deal with a few of the more important conditions—medical and surgical—which were met with by the practitioner, and he hoped that his remarks would stimulate a discussion which would be of benefit to them all. Mr. Brown than proceeded to recount selections from his wallet of varied experience dealing with points of interest in such matters as—the securing of asepsis in operations, general anæsthesia, operations for quittor and crypt-orchidism, sterility, abortion, etc. His address covered a wide field, and from beginning to end was full of useful suggestions of value to the general practitioner.

Professor SHARE JONES was called upon to open the discussion and he proposed a hearty vote of thanks to the speaker. Colonel BRITTLEBANK, who was warmly welcomed as a visitor, seconded the proposition.

After the meeting had adjourned for tea, the discussion was renewed and continued until a late hour, when the members had to leave for home. Most of the members took part in the discussion, and the interest evinced was itself a tribute to the valuable and informative address.

* Received on March 3rd.

NOTES AND NEWS.

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events.

March 19th—Meeting of the Editorial Committee, N.V.M.A., 4-30 p.m.
March 22nd—Annual Meeting of the Western Counties Division at Exeter.
March 23rd—Meeting of the North Wales Division at Station Hotel, Llandudno Junction.
March 26th—Meeting of the Editorial Committee N.V.M.A., 4-30 p.m.
March 29th—Last date for Applications for Election to Examinerships, R.C.V.S.
April 1st—Annual Fees due to R.C.V.S.
April 11th—N.V.M.A. Council and Committee Meetings (Provisional date).
April 11th—Committee Meetings, R.C.V.S.
April 12th—Ditto.
April 13th—Committee and Council Meetings, R.C.V.S.
May 10th—Nominations for Election to Council, R.C.V.S.
May 24th—R.C.V.S. Voting Papers and Annual Reports issued.
Entries due for D.V.S.M. Examination.
May 30th—R.C.V.S. Voting Papers to be returned.
June 7th—Annual General Meeting, R.C.V.S., 12 noon, at 10 Red Lion Square.

HANNOVER VETERINARY SCHOOL'S 150TH ANNIVERSARY.

The Veterinary High School of Hannover will celebrate the 150th Anniversary of its foundation by a festival to be held at Hannover from the 13th to 15th June next.

We understand that the Director, Dr. Miessner, has issued invitations to the President of the Royal College and of the N.V.M.A. and to Principals of the British Veterinary Schools and others.

Veterinarian's Portrait of Earl Haig.

Every member of the profession will have been interested in the announcement that the masterly life-sized portrait of Earl Haig astride his War Charger, exhibited at the Army Officers' Art Society's Exhibition, at the New Galleries, Burlington Gardens, is the work of Mr. Adrian Jones, M.V.O. As our readers will know, Mr. Adrian Jones is a Member of the Royal College of Veterinary Surgeons.

Anatomical Peculiarities of the Arab Horse.

Mr. Tomlin, a London (Class C) student, writes: "It was interesting to read in the daily press recently that a writer, in eulogy of the Arab horse, pointed out that by reason of the fewer lumbar vertebræ this animal is particularly strong in the back.

"Sanson, quoted by Chaveau, estimates that this character is peculiar to horses in N.E. Africa, especially Nubia. This breed also possesses a particular shape of cranium (having possibly greater brain space); also the ulna has a complefte shaft; and Osborn, quoted by Lyddeker, reports a similar case in a skeleton of a Grévy zebra.

"Moreover, some writers state that the Arab horse has usually a wolf tooth in the upper jaw and in the upper premolar the transverse diameter of this tooth is larger than in the case of a horse of Western Europe."

Serious Hunting Accident to Mrs. Trevor Spencer.

We regret to inform our readers that Mrs. Trevor Spencer, of London Road, Kettering, the wife of Mr. Trevor F. Spencer, M.R.C.V.S., sustained a serious accident on the afternoon of Wednesday, March 7th, after hunting with the Woodland Pytchley.

"In company with her husband," states the *Northamptonshire Advertiser* of March 9th, "Mrs. Spencer was returning home when, on reaching Barfórd Bridge, her horse fell on the slippery surface of the road. Mrs. Trevor Spencer was thrown off, her head striking the road. Blood flowed from her head and she was rendered unconscious.

"Information was speedily conveyed to Kettering, with the result that Mr. and Mrs. Trevor Spencer were conveyed home in the St. John Ambulance after Dr. Marsh had attended to the injuries.

"Soon after Mrs. Trevor Spencer had reached home it was stated she was seriously ill, but that she had partially recovered consciousness. All that was possible was done for her by Dr. Dryland and a nurse, and upon inquiry on Thursday morning we were informed that Mrs. Trevor Spencer was much about the same and still holding her own.

"She was then partially conscious and did not remember anything about the accident. Her injuries include cuts on the head and on the elbow."

In response to enquiries from the *Record* office, Mr. Trevor Spencer writes:—"The horse simply went down like a nine-pin on the ice-like surface of the tar macadam. The injuries, I am sorry to say, are serious as regards the skull, but the doctors are very hopeful and indeed almost confident, although, of course, no reliable prognosis can be made until a little more time has elapsed. All we can say at the moment, therefore, is that, in view of the serious nature of the injuries, my wife's condition is as satisfactory as can be expected."

We are asked to express Mr. Trevor Spencer's thanks for the many kind enquiries he has received, to which he regrets his inability to reply individually in the meantime.

Will. Wallis, Mr. William Dawson, M.R.C.V.S. (58), of Wood Street, Barnet (net personalty £1,743), £3,738.

CORRESPONDENCE.

Letters to the Editor should reach the Office not later than by the first post on Tuesday morning for insertion in following Saturday's issue

All correspondence must bear the name and address of the contributor for publication.

The Editor does not hold himself responsible for the opinions of his correspondents.

From the President R.C.V.S.

To the Editor of the Veterinary Record.

Sir,—In your issue of the *Veterinary Record* of January 28th last, you published in your correspondence columns a letter over the signature of Mr. Allan Leslie which contained serious, and I think it will be agreed, libellous imputations against members of the Council of the Royal College of Veterinary Surgeons.

As President of this body for the time being, I could not allow such charges to be made without challenge, and I therefore called upon Mr. Leslie and requested him to either bring his facts (if any) before the Registration Committee, or to withdraw them. At the same time, I gave him every assurance that he would receive all the protection and expert assistance he might require in formulating his charges.

My subsequent correspondence with Mr. Leslie tells its own story, and I submit it to you without further comment beyond expressing the hope that the Editorial Committee will refrain from opening their columns to those who avail themselves of every opportunity of making vague charges against a body of men who work hard for the profession and yet who have no opportunity of defending themselves before the proper legal tribunal provided.—Yours faithfully, J.W. Brittlebank, President, Royal College of Veterinary Surgeons.

Public Health Department,
Civic Buildings,
1 Mount Street,
Manchester,
5th March, 1928.

Little Peter Street, and Commercial Street,
Knott Mill,
Manchester,
6th February, 1928.

Dear Sir,—As a result of your interview with me this afternoon, regarding my letter published in the *Veterinary Record* of January 28th, I write to state that the substance of my letter was not intended, in any way, either to belittle the Council of the R.C.V.S. or to make a definite accusation against the latter body, but merely to state that it is my opinion that some other body—remote from the Council—should deal with such a matter. The other part stated that members of the Council of the R.C.V.S. were not immune from employing unqualified assistants.

When I wrote the letter I was fully conscious of the fact that the better procedure would have been to bring those practitioners who employ unqualified assistants before the Council direct, but I considered the publication of my straightforward letter would stop the unprofessional conduct and at the same time prevent unnecessary expense.

I still fully realise that, but I do not understand why I should be called upon either to withdraw my letter or to verify or confirm the contents therein.

Thanking you for your interview.—Yours truly,
Allan Leslie.

Lt.-Col. J. W. Brittlebank,
1 Mount Street,
Manchester.

13*th February*, 1928.

Dear Mr. Leslie,—In the first place I must thank you for your letter to which I would liked to have replied earlier, but for my absence from Manchester and also partly for pressure of work.

I note in the early part of your letter that you state that you have no idea of belittling the Council of the Royal College of Veterinary Surgeons or to make any accusation against the latter body.

May I say without any desire to be offensive in any way, that so far as I am aware these points were not raised at our interview, nor would it have mattered if they had been, as the Council can quite well look after itself in the administration of its powers conferred under the Veterinary Surgeons Acts and Charters.

What you now suggest that you had in your mind was something entirely different, and is certainly not contained in your letter to the *Veterinary Record*. It is, in fact, that some other body remote from the Royal College of Veterinary Surgeons should be set up to deal with such matters, presumably in *your mind* because the Council of the Royal College of Veterinary Surgeons had failed or were, in your opinion, incapable of carrying out the duties allotted to them. It is quite obvious to anyone taking the trouble to ascertain the correct legal position that it is not possible to set up any other body to deal with questions of infringement of the Bye-laws in respect of unprofessional conduct.

When I called upon you I don't think I left you in any doubt as to the purport of my visit, *viz.*, that you had made certain definite charges in our professional press against members of Council for employing unqualified assistants, and as the head of the Governing body of the profession for the time being, I called upon you to justify the charges made by you, and I further undertook in the name of the Council, that you should have every assistance in bringing your charges. This offer still remains open to you.

The obvious alternative to a vindication of the charges is to honourably withdraw them.

Believe me, in conclusion, that in writing as I have, I am only actuated by a desire to serve the best interests of our profession.—I am, yours faithfully, J. W. BRITTLEBANK.

Mr. A. Leslie, M.R.C.V.S.,
c/o Messrs. Greaves and Faulkner,
Knott Mill,
Manchester.

17*th February*, 1928.

Dear Col. Brittlebank,—I thank you for your letter of the 13th inst., and note all you say, but regret very much that you should presume what was in my mind when I wrote to the Editor of the *Veterinary Record*.

I may say that no such thing or reason was expressed in my communication nor was such an allegation *in my mind* when I wrote it.

I cannot hold myself responsible for other persons presuming evil things.

If you can produce conclusive material to satisfy me that the Council *as a whole*, has been accused or challenged, then I am prepared to amend my letter, for that purpose.

My letter is concerned with the unprofessional conduct of at least one member of Council.

Again thanking you for your letter, and apologising for troubling you.—I remain, yours truly,
ALLAN LESLIE.

Lt.-Col. J. W. Brittlebank,
1 Mount Street,
Manchester.

27*th February*, 1928.

Dear Mr. Leslie,—I regret the delay in answering your letter of the 17th February, but I have been away on Royal College work practically the whole time, and have had no chance to deal with it.

I am sorry to say that, as far as I can make out, there seems to be no desire on your part to clear up the matter under discussion, but you repeat again that you are concerned with the unprofessional conduct of at least one member of Council. In your letter to the *Veterinary Record* this unprofessional conduct relates specifically to the employment of unqualified assistants; a charge which you are apparently not prepared to substantiate, and which I am advised is libellous.

I have now to inform you that unless you accept my invitation to bring your charges or withdraw your original letter, I propose to publish the whole of our correspondence in the *Veterinary Record* and to take such other steps as may be deemed necessary by my legal advisers.—Yours faithfully, J. W. BRITTLEBANK.

Mr. A. Leslie, M.R.C.V.S.,
c/o Messrs. Greaves and Faulkner,
Knott Mill,
Manchester.

28*th February*, 1928.

Dear Lt.-Col. Brittlebank,—I thank you for your letter of yesterday's date, and regret I have no more useful matter to add to the subject under discussion.

With renewed thanks,—Yours truly, ALLAN LESLIE.

Lt.-Col. Brittlebank,
1 Mount Street,
Manchester.

Treatment of Chorea.

TO THE EDITOR OF THE VETERINARY RECORD.

Sir,—In your report of the meeting of the Royal Counties' Division of the N.V.M.A. occur two statements, viz.:—

Major Kirk: "Reverting . . . to chorea, I recommend members to try Parke, Davis's new capsules containing chloretone, pot. brom., and belladonna. They have been very successful in my hands."

Major F. J. Taylor: "I have been having good results by the administration of 'Elixir Hormonigen' (Hewlett's) in chorea. . . . I recommend it as well worth a trial."

I should like to know exactly to what these successes and good results amount. Were the animals cured, and will the two gentlemen give details?

With reference to vomition in the horse, which was also under discussion, I have seen many cases that were not due to any rupture of the stomach and which, when the state of the pulse was ascertained, gave no anxiety whatever, in spite of the symptom. In vomition accompanying rupture, there has always been an unmistakable running-down pulse.—Yours faithfully, A. S. LEESE.

20 St. George's Square, Stamford,
6*th March*, 1928.

The Suspension Method of Treating Paralysis in Dogs.

TO THE EDITOR OF THE VETERINARY RECORD.

Sir,—In the report of the meeting of the Royal Counties' Division at Reading on February 3rd, several members mentioned the benefits brought about by 'Suspension' in cases of paralysis of the dog. I believe the originator of this line of treatment in the dog was Mr. G. Mayall, M.R.C.V.S., who in the *Veterinary Journal* of May, 1918, contributes an article entitled: "Treatment of Injury of

the Spine of the Dog by Suspension," and also in the *North American Veterinarian* for November, 1922, under the heading: "Some Paralyses met with in Practice," refers to the good cures he has had in the dog by 'Suspension.'

My motive for drawing attention to these articles by Mr. Mayall is the desire to give honour to whom honour is due.

In the veterinary profession the lack of attributing or acknowledging new treatments or methods to their inventors is sadly to be deplored, and has, to my mind, a tendency to discourage research among members of the profession.—Yours faithfully, L. C. MAGUIRE.

Malvern House,
Stow-on-the-Wold,
Glos.
March 7th, 1928.

Contagious Rhinitis of the Cat.

TO THE EDITOR OF THE VETERINARY RECORD.

Sir,—I wish to collect information regarding contagious rhinitis of the cat ("snuffles," "distemper"). I should be indebted to any member of the profession who could refer me to any articles on this condition.—Yours faithfully, GEOFFREY B. BROOK.

Royal (Dick) Veterinary College,
Edinburgh.
February 25th, 1928.

Ultra-Violet Radiation on the Larger Animals.

TO THE EDITOR OF THE VETERINARY RECORD.

Sir,—It is understood that several veterinary surgeons are using ultra-violet radiation in horse practice. I, for one, would be greatly indebted to them for any particulars they care to publish regarding technique and results obtained. Whilst quite a substantial amount of work has been done and made available to the profession on electrotherapy in its relation to canine and feline patients, a gap in our knowledge exists as far as the larger animals are concerned.—I am Sir, yours faithfully, PERCY WELCH.

The Priory,
Saffron Walden.
March 7th, 1928.

Agglutination Test in Contagious Abortion.

TO THE EDITOR OF THE VETERINARY RECORD.

Sir,—I was interested in reading Mr. Hugh Begg's letter in the *Record* of March 10th, with reference to the efficiency of the agglutination test in contagious abortion.

I consider it is quite reliable when used repeatedly on an individual cow as is the custom when the "isolation" method is adopted in combating the disease; at other times, one has to be always on one's guard. When treating an abortion herd (whether or not vaccination is being done) I prefer to use the premonitory symptoms as my chief guide for isolation.—Yours faithfully, O. STINSON.

40 Pembroke Street,
Appleby.
13*th March*, 1928.

The Editor acknowledges the receipt of the following:—

Report of a meeting of the Midland Counties' Division, from Mr. H. J. Dawes, Hon. Secretary.

Report of a meeting of the Southern Counties' Division, from Mr. J. Facer, Hon. Secretary.

Communications from Professor R. G. Linton, Major H. Kirk, Messrs. H. C. P. King, Dr. F. C. Minett, R. A. Philp, H. M. Salisbury and R. H. Smythe.

AN OPEN LETTER
TO THE VETERINARY PROFESSION IN THE BRITISH EMPIRE.

THE following letter was addressed to a large proportion of Veterinary Surgeons resident in Great Britain and Ireland. The offer contained in it is now extended to all Fellows and Members of the Royal College of Veterinary Surgeons both at home and abroad.

❋ ❋ ❋

Dear Sir,

There is little doubt that the new edition of

Hutyra & Marek's "Special Pathology"

would, but for its high cost (£5-5-0), be on the shelves of every veterinary practitioner, for (in the words of the *Veterinary Journal*), "No book has ever been written with such authority on animal diseases in any language." In order, therefore, to enable as many veterinary surgeons as possible to possess this book *and* to ease the incidence of its cost of purchase, we have decided to make this

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The set of three volumes will be delivered on receipt of your order and cheque for a first payment of 30/-, or by post office C.O.D. service (where in operation) against a payment of a like amount, the balance being payable in two quarterly instalments of 40/- each.

Kindly note that no interest is charged on these instalments, the only cost to you being 5/- to cover carriage, packing and book-keeping expenses, but in countries where carriage exceeds 5/-, the extra cost will be charged.

If you accept this offer, please return this letter, endorsed on the back with the words "Please supply" and your name and address, and state whether cheque is enclosed or the goods are to be sent C.O.D.

Yours faithfully,
BAILLIÈRE, TINDALL & COX.

❋ ❋ ❋

We repeat this letter here in case it either failed to reach any Veterinary Surgeon, or has been overlooked by him.

The Offer is open to all Fellows and Members of the Royal College of Veterinary Surgeons.

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